

## REMARKS / ARGUMENTS

Currently in the case, after amendment, claim 1 is pending and rejected, but is believed to be in condition for allowance. Newly added claims 2 - 6 have been added.

This Amendment responds to the aforementioned Office Action, wherein the claims as originally presented were rejected under Title 35 of United States Code, §§112, & 103. The Examiner's remarks have been carefully considered and, in view of the cited art, the claims which have amended to more particularly point out the distinctly claimed what Applicants regard as the subject matter of this present invention, it is sincerely believed that the claims which remain in the instant case patentably distinguish over all the prior art references. It is respectfully requested that this Application be re-examined in view of the following remarks, that the rejections be withdrawn, and that allowable subject matter be identified.

The points raised by the Examiner in the written office action will be responded to in the order they were discussed by the Examiner in the Office Action.

Paragraph 1 noted the lack of an information disclosure statement. The invention was related from the inventor to the Attorney for Applicant without a search of any prior references,

and without any references having been supplied by the inventor.

Paragraphs 1 & 2 point out a typographical error in one block of one of the drawings. A correction is included in this response.

In paragraphs 3 & 4, the Examiner has pointed out the new shortened abstract requirement. The abstract has been amended to a shorter length. For the Examiner's convenience, a replacement abstract is also included as an addition to the formal amendment of the abstract in this response.

#### Review of The Invention

In comparing the claimed invention to the cited references it appeared to me that the invention needs to be re-iterated. The invention is a stain removal system in which an ultrasonic contact member is flanked by two ultraviolet light exit structures, which are typically light pipe or other ultraviolet sources. Both the ultraviolet and ultrasonic members are immersible and/or able to work within a liquid environment.

Many of the references are ultrasonic, but most have some sort of automatic metering structure. Many also have some sort of pumping apparatus. The Invention of the present application has an optional reservoir and pump handle sprayer as a convenient way to carry a supply of liquid media.

In paragraphs 5 and 6, Claim 1 was rejected with regard to

U.S. Patent No. 5,309,590 to Giuliani. Giuliani discloses a toothbrush with a vibrating head having a membrane supply 30 which injects toothpaste directly into the bristles.

The reference has no working light sources as are included in the claimed invention. The use of a vibrating structure in conjunction with a brush is different than a solid ultrasonic transfer structure. The invention of claim 1 includes an ultraviolet source and is therefore not anticipated by the Giuliani et al. reference.

In paragraphs 9 & 10, claim 1 was rejected with regard to U.S. Patent Publication No. U.S. 2004/0250844 to Kumazaki entitled "ULTRASONIC CLEANER". This structure has a head which operates a liquid dispenser, such that pressing the end against a surface operates to squirt liquid while exposing an ultrasonic structure. As a result, the Kumazaki structure can only operate with actuation of its reservoir which is needed to expose its ultrasonic transmission structure. Again, Kumazaki has no ultraviolet structure, and in particular no such structure adjacent its ultrasonic actuation structure.

In paragraph 11, claim 1 was rejected with regard to U.S. Patent Publication No. U.S. 2004/0050659 to Chan et al entitled "ELECTRIC TOOTHBRUSH COMPRISING A POWERED ELEMENT". It is mentioned that the toothbrush may have "UV light for self

sanitizing functions" as well as for bristle movement. Also mentioned is an earlier reference which uses ultrasonics for a toothbrush. The details of any such structure are limited to toothbrush applications.

The Chan reference was filed July 9, 2004, more than seven months after the filing of the instant invention.

Applicant asserts that the claim 1 is allowable because the adjacency of an ultrasonic element to the ultraviolet element for direct contact is not shown or suggested in the prior references.

The purpose of locating the light with the ultrasonic structure is to shake up the stains so that the stains can be physically moved about and thus exposed to the ultraviolet light. It is doubtful that direct contact between an ultrasonic structure and the teeth is desired as this could concentrate sufficient force to damage the teeth. This is simply one showing that the references for ultrasonic stain cleaning and the references for dental cleaning are not analogous, and that diverse references to various toothbrush structures should not be combinable to defeat a claim with the ultrasonic cleaning structures recited in claim 1. Therefore, claim 1 is believed to be in condition for allowance.

In paragraph 12, claim 1 was rejected with regard to U.S. Patent Publication No. U.S. 2005/0204490 to Kemp et al entitled

"POWERED TOOTHBRUSH". The toothbrush uses "magnetic levitation" to power a light. It is stated "The power generated by simply shaking the toothbrush can, in addition to powering movable cleaning elements, be used to emit light or sound from the toothbrush, provide energy to catalyze special synergistically formulated toothpaste, provide energy for piezoelectric functions or generate UV light for self sanitizing functions". Again an electric source may be used for UV light, but it is Applicant's position that any combination of toothbrush art is not analagous to the ultrasonic cleaner art. This is particularly true for the protruding ultrasonic element.

Therefore, claim 1 as amended is believed to be in condition for allowance. None of the dental based references include an ultrasonic structure which can contact directly the structure to be ultrasonically cleaned.

Claims 2 - 6 relate to limitations on the positioning of the ultraviolet light structure and the shape and location of the ultrasonic structure.

An indication of allowability for all of the claims 1 - 6 is solicited. Applicant requests reconsideration and ultimate allowability of all aspects of the case, including all of claims 1 - 6.

The Examiner is invited to telephone Applicant's Attorney at

the number below between the hours of 1:00 p.m. and 6:00 p.m.

Eastern Standard Time, if such will advance this case.

Dated: February 23, 2006 Respectfully submitted:



Curt Harrington  
Registration Number 31,456  
Suite 250  
6300 State University Drive  
Long Beach, CA 90815

Tel. (562) 594-9784  
Fax. (562) 594-4414  
Docket: MAH-37

DATE OF DEPOSIT: February 23, 2005

I HEREBY CERTIFY THAT THIS PAPER OR FEE IS BEING DEPOSITED  
WITH THE UNITED STATES POSTAL SERVICE AS fax to (703) 273-8300  
to Commissioner for Patents; P.O. Box 1450; Alexandria, VA  
22313-1450



Curtis L. Harrington Reg. No. 31,456